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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/706,408	11/03/2000	Mitsuru Takeyasu	80A 3002	7889

7590 04/10/2003  
Koda and Androlia  
2029 Century Park East  
Suite 3850  
Los Angeles, CA 90067-3024

EXAMINER

WARD, JOHN A

ART UNIT PAPER NUMBER

2875

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/706,408

Applicant(s)

TAKEYASU ET AL.

Examiner

John A. Ward

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDermott (US 5,899,557) in view of McDermott (US 5,894,196).

Regarding claim 1, McDermott ('557) discloses a multi-source lighting device comprising of a plurality of light distributing LEDs S1-S6 mounted in a circular formation on a circuit board 9, figure 9 teaches how they are arranged radially on an horizontal circumference so that a wider divergence of each LED is horizontally than vertically (see figure 2 and 3), (column 8, lines 4-40).

Regarding claim 2, claim 2 of McDermott discloses a lens 32 provided with a diffusion part that diffuses light only in a horizontal direction.

McDermott regarding claims 3 discloses a lens 32, having a diffuses portion (claim 6), figure 1, 2, and 12, teaches how the LED lighting fixtures is comprised of a plurality of light distributing LEDs and are provided radially and on a horizontal circumference.

McDermott does not disclose elliptically light distributing LEDs.

Regarding claim 1, discloses an angled elliptical axial light device comprising of an elliptical light emitting diodes having an elliptical distribution (claim 1).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the lighting device of McDermott with the elliptical axial lighting of McDermott in order to provide a lighting device to provide a plurality of LED elements to project a composite light beam with an elongated beam pattern using an optical system that optimizes the percentage of created light that contributes to the light beam as taught by McDermott (column 2, lines 48-52)

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDermott in view of in view of McDermott (US 5,894,196) and in view of Ryan, Jr. et al (US 6,244,727).

McDermott regarding claims 4-5 discloses all the limitations of the claims comprising of LEDs S1-S7, a lens 32, having a diffuses portion (claim 6), figure 1, 2, and 12, teaches how the LED lighting fixtures is comprise of a plurality of elliptically light distributing LEDs and are provided radially and on a horizontal circumference. Figure 12 show that the lighting fixture can be stacked for an increase of illumination.

McDermott does not disclose elliptically light distributing LEDs.

Regarding claim 4, discloses an angled elliptical axial light device comprising of an elliptical light emitting diodes having an elliptical distribution (claim 1).

McDermott does not disclose that a screw that runs through the bosses of the lighting fixture fastens the stack units or the lens being unit-type lens.

It is desired to provide a means to attach a plurality of circuit boards together in a vertical array in order to provide an increased amount of light emitting from the lighting device, and a means to mount the circuit boards.

Regarding claim 6, Ryan, Jr. et al ('727) discloses an optic lens cell and illuminated signage having a cell array comprising of a plurality of elliptically distributing LEDs 12 (column 6, lines 1-10) mounted on a printed circuit board in a horizontal position adjacent to a unit-type lens 18 for illuminating each light emitting diode in a horizontal direction, and a screw 19 to hold the lens 18 in place to the printed circuit board.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the lighting device of McDermott with the elliptical axial lighting of McDermott and the optic lens cell of Ryan, Jr. et al in order to provide a lighting device to provide a plurality of LED elements to project a composite light beam with an elongated beam pattern using an optical system that optimizes the percentage of created light that contributes to the light beam as taught by McDermott (column 2, lines 48-52).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dermott (US 5,894,196)

Regarding claim 7, McDermott discloses the claimed invention including an elliptically distributed light emitting diode, except for the LED's having a divergence angle of 120-150 degrees. It would have been obvious to one of ordinary skill in the art

the time the invention was made to provide the LED's having a horizontal divergence of an angle from 120-150 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McDermott (US 5,898,267) also discloses elliptically distributed LED.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Ward whose telephone number is 703-305-5157. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 703-305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0596.

A handwritten signature in black ink, appearing to read 'John A. Ward', with a large, stylized loop at the end.

John A. Ward  
Patent Examiner AU 2875

JAW  
April 2, 2003